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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/742,327	12/18/2003	Ely K. Tsem	60809-0146-US	5522
38426	7590	11/23/2005		
MORGAN LEWIS & BOCKIUS LLP/RAMBUS INC. 2 PALO ALTO SQUARE 3000 EL CAMINO REAL PALO ALTO, CA 94306				
			EXAMINER CHEUNG, MARY DA ZHI WANG	
			ART UNIT 3621	PAPER NUMBER

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/742,327

Applicant(s)

TSERN ET AL.

Examiner

Mary Cheung

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-61 is/are pending in the application.
- 4a) Of the above claim(s) 32-36 and 45-61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-31 and 37-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. This action is in response to the restriction election filed on September 9, 2005.

Claims 16-61 are pending. Claims 16-31 and 37-44 are elected for examination.

Claims 32-36 and 45-61 are not elected; thus, they are withdrawn from consideration.

2. Applicant's argues that the restricted election group II (claims 32-36 and 45-54) are comprising common limitations as group I (claims 16-31 and 37-44) and thus group II should be examined together with Group I. Examiner respectfully disagrees because Group II comprises additional subject matter such as latency. Because group I and Group II are classified under different classes and required separate classification searches, restriction is proper.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 24-31 and 41-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 24 and 41, it is not clear what the phrase "a sensing operation", "sensed during the sense operation", and "sensing a row of..." mean. The applicant is advised to clear define these terms in the claims.

Claims 25-31 and 42-44 are rejected for incorporating the errors of their respective base claims by dependency.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 16-23 and 37-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Dieffenderfer et al., U. S. Patent 5,910,930.

As to claim 16 and 23, Dieffenderfer teaches a memory device having a core that includes memory cells, the memory device comprising (Fig. 1):

- a) A clock receiver circuit to receive an external clock signal (column 3 line 59 – column 4 line 14 and Fig. 1);
- b) A delay locked loop circuit coupled to the clock receiver, wherein (column 4 lines 45-51 and Fig. 1);
- c) During a first power mode the delay locked loop circuit and the clock receiver circuit are turned on (column 4 lines 45-49 and column 5 lines 4-6);
- d) During a second power mode, the delay locked circuit is turned off (column 5 lines 1-3, 17-21).

As to claim 17, Dieffenderfer teaches the second power mode is a power down mode (column 5 lines 1-3, 17-21).

As to claim 18, Dieffenderfer teaches during the second power mode, the clock receiver circuit is turned off (column 5 lines 1-3, 17-21).

As to claim 19, Dieffenderfer teaches a first control line, coupled to the clock receiver circuit and the delay locked loop circuit, wherein, during the second power mode, the delay locked loop circuit and the clock receiver are turned off using the first control line (column 4 line 45 – column 5 line 39 and Fig. 1).

As to claims 20-21, Dieffenderfer teaches wherein during a third power mode, the delay locked loop circuit is in a low power configuration and the clock receiver is turned on (column 4 lines 60-61).

As to claims 22 and 40, Dieffenderfer teaches a resynchronization time of the delay locked loop circuit in the low power configuration is less than a resynchronization time of the delay locked loop circuit in the second power mode or the power down mode (column 5 lines 6-8, 19-21).

As to claim 37, Dieffenderfer teaches a method of operation of a memory device having a core of memory cells, the method comprising (Fig. 1):

- a) Receiving a command that specifies a power down mode (column 4 lines 52-56);
- b) Turning off a delay locked loop circuit in response to the command that specifies the power down mode (column 5 lines 1-3, 17-21);
- c) Operating the memory device in a standby power mode, wherein the delay locked loop circuit is turned on in the standby mode (column 4 lines 45-49 and column 5 lines 4-6).

As to claim 38, Dieffenderfer teaches wherein during the power down mode, a clock receiver circuit is turned off (column 5 lines 1-3, 17-21).

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As to claim 39, Dieffenderfer teaches operating the memory device in a nap mode, wherein during the nap mode, the delay locked loop circuit is in a low power configuration (column 4 lines 60-61).

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 16-31 and 37-44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1-35 of U.S.

Patent No. 6,263,448. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both a memory device receives different clock signals.

9. Claims 16-31 and 37-44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1-40 of U.S. Patent No. 6,701,446. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both a memory device receives different clock signals.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ware et al. (U. S. Patent 5,337,285) discloses power control in devices.

Townsley et al. (U. S. Patent 5,623,677) discloses reducing power consumption in a computer system.

Iwamoto et al. (U. S. Patent 5,629,897) discloses synchronous semiconductor memory device having a mode requiring an internal clock signal and a mode not requiring the internal clock signal.

Yeoh et al. (U. S. Patent 5,726,650) discloses adaptive manchester decoding with adjustable delay and power saving mode.

Yoo et al. (U. S. Patent 5,845,108) discloses semiconductor memory device using asynchronous signal.

Rao (U. S. Patent 5,890,195) discloses DRAM with integral SRAM comprising plurality of sets of address latches each associated with one of a plurality of SRAM.

Budd (U. S. Patent 5,918,058) discloses routing of clock signals in a data processing circuit with a power saving of operation.

Tran (U. S. Patent 5,987,620) discloses self-timed and self-enabled distributed clock.

Eto et al. (U. S. Patent 6,037,813) discloses selecting operation mode based on clock frequency.

Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Cheung whose telephone number is (571)-272-6705. The examiner can normally be reached on Monday – Thursday from 10:00 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell, can be reached on (571) 272-6712.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax phone number for the organization where this application or proceedings is assigned are as follows:

(571) 273-8300 (Official Communications; including After Final
Communications labeled "BOX AF")
(571) 273-6705 (Draft Communications)

Mary Cheung
Primary Examiner
Art Unit 3621
November 21, 2005



MARY D. CHEUNG
PRIMARY EXAMINER